

## THE CLAIMS

We claim:

- Sub B<sub>1</sub>
1. A medium for growing *Lactobacilli* comprising:  
a milk-derived base; and  
an additive system that comprises at least four amino acids, at least two ribonucleotide precursors, and iron, in amounts sufficient in combination to promote growth of *Lactobacilli* in the medium.
  2. The medium according to claim 1, wherein the ribonucleotide precursors are ribonucleosides, each added in the range of from about 10 to about 500 milligrams per liter of medium.
  3. The medium according to claim 1, wherein the ribonucleotide precursors are selected from the group consisting of adenosine, guanosine, cytidine, and uridine, and wherein the amino acids added comprise cysteine.
  - Sub A<sub>2</sub>  
Sub B<sub>2</sub>  
Sub A<sub>3</sub>  
4. The medium according to claim 3, wherein the ribonucleotide precursors consist essentially of adenosine and guanosine; cytidine and uridine; or mixtures thereof.
  5. The medium according to claim 1, wherein the amount of iron added is in the range of about 10 to about 200 milligrams of iron per liter of medium.
  6. The medium according to claim 1, wherein the amino acids added comprise cysteine, alanine, serine and isoleucine, each in an amount ranging from about 10 to about 200 milligrams per liter of medium.
  7. The medium according to claim 1, further comprising a compound that provides antioxidant or reducing activity.

12

8. The medium according to claim 7, wherein the compound that provides antioxidant or reducing activity is selected from the group consisting of cysteine, thioglycollic acid, ascorbic acid, or mixtures thereof.

9. The medium according to claim 1, further comprising added magnesium and aspartic acid, wherein the ribonucleotide precursors comprise free bases.

10. The medium according to claim 9, wherein the amino acids added comprise cysteine, alanine, serine and isoleucine, each in an amount ranging from about 10 to about 200 milligrams per liter of medium; wherein the ribonucleotide precursors added are each in the range of from about 10 to about 500 milligrams per liter of medium; and wherein the amount of iron in the additive system is sufficient to add about 10 to about 200 milligrams of iron per liter of medium.

11. The medium according to claim 1, wherein the milk-derived base comprises whole milk, partially de-fatted milk, skim milk or UHT milk, whether prepared from natural sources or from dried milk powder by addition of water.

12. A method for cultivating *Lactobacilli* comprising:

forming a medium of a milk-derived base and an additive system that comprises at least four amino acids, at least two ribonucleotide precursors, and iron, in amounts sufficient in combination to promote growth of *Lactobacilli* in the medium;

inoculating the medium with at least one *Lactobacilli* belonging to Johnson's group A and B; and

incubating the inoculated medium for a preselected time to promote growth of *Lactobacilli* in the medium.

13. The method of claim 12 wherein the amino acids added comprise cysteine, alanine, serine and isoleucine, each in an amount ranging from about 10 to about 200 milligrams per liter of medium; wherein the ribonucleotide precursors include at least two ribonucleosides, each added in the range of from about 10 to about 500 milligrams per liter of medium; and

wherein the amount of iron added is in the range of from about 10 to about 200 milligrams of iron per liter of medium.

14. The method of claim 12 wherein the amino acids added consist essentially of cysteine, alanine, serine and isoleucine, each in an amount ranging from about 10 to about 200 milligrams per liter of medium; wherein the ribonucleotide precursors added comprise at least two of the group selected from adenosine, guanosine, cytidine, and uridine; and wherein the amount of iron added is in the range of from about 10 to about 200 milligrams of iron per liter of medium.

15. A method of preparing dairy products, comprising:

forming a medium of a milk-derived base and an additive system that comprises at least four amino acids, at least two ribonucleotide precursors, and iron, in amounts sufficient in combination to promote growth of *Lactobacilli* in the medium; and

inoculating the medium with at least one *Lactobacilli* belonging to Johnson's group A and B to form a dairy product.

16. The method of claim 15 further comprising fermenting the inoculated medium for a preselected time to form a fermented dairy product.

17. The method of claim 15 wherein the amino acids added consist essentially of cysteine, alanine, serine and isoleucine, each in an amount ranging from about 10 to about 200 milligrams per liter of medium; wherein the ribonucleotide precursors added comprise at least two of adenosine, guanosine, cytidine, and uridine; and wherein the amount of iron added is in the range of from about 10 to about 200 milligrams of iron per liter of medium.

add  
A5